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July 15, 2002

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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

Marlene H. Dortch, Secretary
Federal Communications Commission
445 Twelfth Street, S.W.
Washington, D.C. 20554

Re: Revisions of the Commissions's Rules To Ensure Compatibility with Enhanced 911 Emergency Calling Systems- CC Docket No. 94-102
Poka Lambro Telecommunications, Ltd.
TTY Quarterly Report - Second Quarter 2002

Dear Ms. Dortch:

Pursuant to the Commission's *Fourth Report and Order* in this proceeding, Poka Lambro Telecommunications, Ltd.[1] hereby submits this carrier quarterly report on the progress of TTY-digital deployment solutions (CC Docket No. 94-102).

Please contact the undersigned if you have any questions regarding this report.

By: John K Kuykendall
Tamber Ray
John Kuykendall
Its Attorneys

Attachment

cc: Barry Ohlson, Chief, Policy Division, Wireless Telecommunications Bureau
Pam Gregory, Chief, Disabilities Rights Office, Consumer & Governmental Affairs Bureau
Qualex (with diskette)

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[1] Formerly known as Poka Lambro Telecommunications, Inc.

POKA LAMBRO TELECOMMUNICATIONS, LTD.
d/b/a DIGITAL CELLULAR OF TEXAS
TTY REPORT
July 15, 2002

1. **Network infrastructure software development**

Poka Lambro Telecommunications, Ltd. d/b/a Digital Cellular of Texas ("Poka Lambro")1 utilizes Nortel Networks equipment to provide TDMA digital services. Poka Lambro understands that Nortel Networks has completed its development of software and product tests to enable carriers using Nortel equipment to comply with the Commission's TTY requirements.

2. **Handset development and testing plans**

Poka Lambro must rely on vendors of handsets used by its customers to develop TTY capability within those handsets. Poka Lambro will test any customer's handset for TTY compliance upon request by a customer. Testing can then be performed with area PSAPs to ensure compatibility.

3. **Beta testing and lab testing**

Poka Lambro must rely on Nortel Networks and handset vendors for initial conformance testing.

4. **Release and general availability to carriers of network infrastructure software**

Poka Lambro understands that Nortel Networks' TTY software generic is commercially available.

5. **Availability to carriers to full acceptance test units**

Poka Lambro understands that Nortel Networks has completed testing of its TTY solution. (See attached TDMA TTY/TDD Regulatory FAQ/RFI dated March 29, 2002.)

6. **Efforts toward achieving digital wireless solution capability with enhanced TTY devices**

Poka Lambro understands that the Nortel MTX10 is based on the current IS-823A standard and that Nortel plans to support new and evolved standards in next year's software releases. (See attached TDMA TTY/TDD Regulatory FAQ/RFI dated March 29, 2002.)

7. **Carrier coordination of testing with PSAP**

See response to item 2 above.

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1 Formerly known as Poka Lambro Telecommunications, Inc.

8. **Carrier testing activities, including field testing, consumer end-to-end testing, and other necessary tests**

Poka Lambro understands that the Nortel Networks software generic necessary to comply with the Commission's TTY requirements is MTX10. Poka Lambro has completed installation and testing of the Nortel Networks MTX10 software.

9. **Retail availability of necessary consumer equipment.**

At this time, it is unknown when the vendors of handsets used by Poka Lambro's customers will offer a commercially available TTY solution.

10. **Geographic scope of network infrastructure deployment**

Poka Lambro provides service to cellular RSAs 654 and 659.

Respectfully Submitted,

David McEndree

By: David McEndree
Title: CEO & General Manager

Enclosed is information regarding Nortel Networks' plans to deliver TTY solutions to market in support of TDMA service providers ability to meet FCC TTY milestone objective.

- What is the status of TTY/TDD network infrastructure **software/hardware development and testing**?

  Nortel response: Nortel Networks' TDMA TTY/TDD functionality is compliant to IS-823A (TTY/TDD Extension to TIA/EIA 136-410 Enhanced Full Rate Speech Codec) for the EFRC Codec. The development and internal product testing are now complete and end-to-end system verification is being performed. Nortel Networks has tested this feature with alpha/beta handsets from a few major vendors, which have all shown positive results. We have also received TTY capable mobile handsets containing commercial TTY software from major vendors, which have shown excellent interoperability test results. Nortel Networks has also performed tests with a leading manufacturer of TTY/TTD PSAP equipment to ensure interoperability. Results of that specific testing were found to be positive.

  Nortel Networks plans to support new and evolved standards in next year's software releases. Operators will be able to deploy the Nortel Networks TTY solution i.e. MTX10, which is based on the current IS-823A standard, to meet the FCC deadline for implementation.

- What is Nortel Network's TTY/TDD plans to test and confirm solution performance including additional tests referenced in Sections 20-23 of the **FCC 4th Rule and Order 12-14-2000**?

  Nortel response: Regarding Section 20-23, Turbocode and HiSpeed is each a proprietary feature of TTY device vendors Ultratec and Ameriphone, respectively. If TDMA standards are enhanced to support these devices, Nortel will support this in a future release. Standards are designed to avoid supporting proprietary methods, and Nortel Networks is not aware of any effort to standardize these proprietary features. The FCC does not require vendors to support TTY enhanced signaling.

- What are the **hardware baseline and software baseline** to support TDMA TTY/TDD functionality?

  Nortel response:

Regulatory solution required	TDMA HW/SW baseline
TTY/TDD	EDSPM SW for the ICP; MTX10 SW for the DMS-MTX TTY capable handsets (3rd party)

- What **software baseline** must the MTX be running in order to upgrade to MTX10?

  Nortel response: The MTX is required to be running MTX09 in order to upgrade to MTX10. Nortel Networks has always maintained an allowance for CSP or Communication Services Platform "jumps" from MTX release to MTX release. The MTX has received significant changes due to moving to a multi-processing architecture thus the CSP layer has evolved to CSP14. It is because of this very different CSP14 layer of the MTX10 release that an MTX cannot upgrade safely from MTX08 directly to MTX10.

- What is the Network infrastructure software/hardware **planned general availability dates** that support the deployment of this regulatory feature?

  Nortel response: In order that Carriers may comply with the FCC's June 30, 2002 requirement for TTY/TDD implementation, Nortel Networks has made TTY/TDD enabling software available as follows:

Software load	TDMA SW general availability
MTX10 TDMA (incl. DSPM)	December 07, 2001* - Now Available

  * In late January 2002 Nortel Networks made generally available as part of it's standard MTX10 TTY/TTD offering an improved TTY/TDD solution e.g. Auto baud capabilities, improved total character error rate (TCER). This new maintenance DSPM load was also made available to those customers who received the original MTX10/DSPM software prior to this new version's January release. To date all Nortel Networks customers who have scheduled a MTX10 upgrade have the ability to become fully compliant to the FCC TTY/TTD mandate prior to the June 30, 2002.

- For TTY/TDD what are the plans to work with any wireless carrier to perform **end-to-end customer tests**, and when will this occur?

  Nortel response: The verification process for MTX10 with the customer began in August 2001. Nortel had recommended that the operator engage their chosen TDMA TTY handset vendor during the verification process or VO process to participate in interoperability testing with the Nortel Networks solution. After much delay our service provider VO partners have acquired TTY capable handsets. **The TTY feature has now been fully verified within a lead customers live network.** The Nortel Networks TTY/TTD solution showed TCER of less than 1% in most cases and marginally exceeded 1% TCER is only the most strenuous RF and TTY/TTD test conditions. Nortel Networks used several different TTY mobile terminals during these test activities. Please note the 1% TCER is not part of the FCC mandate.

  Operators are encouraged to request their handset vendors to test their commercial-grade TDMA TTY capable handsets in Nortel's Wireless Interoperability Lab.
  All verification activities were dependent upon the availability of commercial-grade TDMA TTY/TTD handsets.

- What is the **schedule for deployment** of the software/hardware in the network?

  Nortel response: The minimum baseline software requirements for this functionality are given above. For questions related to scheduling its deployment into a carrier's network, please contact Nortel Networks Product Deployment. The few TDMA customers who have ordered and scheduled an MTX10 upgrade are currently showing full network upgrade prior to June 30, 2002.
  Nortel Networks recommends that all customers who have not yet ordered and scheduled upgrade to MTX10 contact Nortel Networks to ensure software upgrade prior to June 30, 2002.

- What are Nortel Network's plans to **test their own or other vendor handsets** with your switch solution?

  Nortel response: Nortel Networks provides only infrastructure for wireless networks. Nortel Networks does not provide mobile handsets. Nortel Networks infrastructure software, namely MTX10, was available in August 2001 for scheduled external end-to-end customer testing. This testing activity was scheduled to complete in advance of Dec 31, 2001. Our lead verification customers did not acquire commercial grade TTY handset until much later in the test window. Nortel Networks recommends that the operator engage its handset vendor(s) in order to respond to the FCC regarding handset availability.

  Operators are encouraged to request their handset vendors to test their commercial grade TDMA TTY capable handsets in Nortel's Wireless Interoperability Test Lab. To date very few Nortel Networks customers have tested their choice of TTY/TTD enabled mobile handsets with the Nortel Networks solution.

  Please contact Gerry Chaparro for scheduling TTY testing in the Nortel Networks Wireless Interoperability Test Lab, where testing is based on current published standards (Phone: 972-684-4622; Fax: 972-684-3881; mailto:chaparro@nortelnetworks.com)

- **Contacts**:

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